

157753

Wednesday, April 05, 2017 2:13:08 PM

N900040100

Stop ***NS2***

Start Date: 4/6/2017 **Start Qty:** 1.00 ***1***

Required Date: 4/13/2017 Req'd Qty: 1.00 *1*

Reference: SCHEDULED/S

Approvals: _____ **Process Plan:** _____ **Date:** 100-0-5-2017

Tooling: _____ **Date:** _____

Run Start *NR1*

QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr	APR 10 2017	DAS
646.4000	C1		

100	Document Control	0.00
1 00	DOCUMENT CONTROL	
DC	Memo	0.00
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 646.4001	

100

DC

110	Pick Kit	0.00
-----	----------	------

110

Packaging

Packaging

120	QC4- 100% Inspect kits for completeness	0.00
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120

QC

Quality Control

APR 12 2017

1 APR 11 2017

DAS
28
9-8: APR 12 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Work Order ID 157753

Wednesday, April 05, 2017 2:13:08 PM

157753

Page 2

Item ID: 646.4001 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: AS350 Cable Cutter System
Start Date: 4/6/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 4/13/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference: SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4001 Location: <u>Fg 101</u>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.10							
Quality Control									

DAS
28
9-89

APR 12 2017

DAS
21
9-89

APR 13 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Page 1

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.23 NEW ISSUE DD VERF:JLM
IPP REV:B 15.01.08 AS PER DWG REV.B DD VERF:JLM IPP
REV:C 16.01.07 AS PER DWG REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
600.0129 *600 0129* VHB TAPE 75935A651		Purchased	No			100	f	112.0000	8	8		APR 11 2017	DAS 6 27 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				CKK096		112							
				m135867		112							
600.0990 *600 0990* Magnabond 6398 Part A Size 112 ml		Purchased	No			100	Each	30.0000	1	1			DAS 27 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				PKG		30							
				M136586		5							
				M136862		12							
				M137073		12							
				M134249		1			1/1/2017				
600.0991 *600 0991* Magnabond 6398 Part B Size 112 ml		Purchased	No			100	Each	30.0000	1	1			DAS 27 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				PKG		30							
				m136586		6							
				m136862		12							
				m137073		12							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER :							
Misidentified	☐	Past Due								

Picklist Print

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Page 2

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

600.1012 Purchased No 100 Each 15.0000 1 1 APR 11 2017

600 1012

Sealant PR1425B2 (#654 sem)

**

Location

Loc Qty

Loc Code

cck017

15

m136838

8

m1370073

7

600.1013 Purchased No 100 Each 60.0000 5 5 APR 11 2017

600 1013

021200-3M TAPE PRIMER 94 PRIMER 24216

**

Location

Loc Qty

Loc Code

CCK096

60

m136345

35

m137150

25

646.2910 Manufactured No 100 Each 14.0000 1 1 APR 11 2017

646 2910

Deflector

**

Location

Loc Qty

Loc Code

CCK050

14

155356

14

646.3001 Manufactured No 100 Each 6.0000 1 1 APR 11 2017

646 3001

Lower Cable Cutter Assembly

**

Location

Loc Qty

Loc Code

cck018

6

156876

4

156316

2

10/7/2018

10/8/2018

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Shop Packet Print

Page 2

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WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

Picklist Print

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Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

646.3110
646 3110
Channel

DAS
28
9-89

Manufactured No

100 Each

8.0000

1 1
**

DAS
6
9-89
DAS
27
9-89

ADD 1 1 2017

Location

Loc Qty

Loc Code

cck020

8

152235

2

156797

6

646.3210
646 3210
Support

DAS
28
9-89

Manufactured No

100 Each

10.0000

1 1
**

DAS
6
9-89
DAS
27
9-89

APR 1 1 2017

Location

Loc Qty

Loc Code

cck020

10

155378

10

646.3301
646 3301
Upper Cutter Assembly

DAS
28
9-89

Manufactured No

100 Each

5.0000

1 1
**

DAS
6
9-89
DAS
27
9-89

APR 1 1 2017

Location

Loc Qty

Loc Code

cck018

5

156800

5

646.3510
646 3510
Strut

DAS
28
9-89

Manufactured No

100 Each

13.0000

1 1
**

DAS
6
9-89
DAS
27
9-89

APR 1 1 2017

Location

Loc Qty

Loc Code

cck104

3

152366

3

CCK108A

10

156767

10

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																				
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																				
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																				
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																				
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																				
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																				
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																				
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																				
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																				
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																				
OTHER : _____																																																																							

Picklist Print

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Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

646.3511 Manufactured No

100 Each

7.0000

1 1

646 3511

Strut

**

APR 11 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

1

155269

1

CCK108A

6

156231

6

646.3610 Manufactured No

100 Each

19.0000

1 1

646 3610

Filler

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

19

151687

1

156880

18

646.3710 Manufactured No

100 Each

23.0000

1 1

646 3710

Doubler

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK006

23

152594

23

646.3711 Manufactured No

100 Each

12.0000

1 1

646 3711

Clip

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

12

151670

2

156840

10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____	

Picklist Print

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Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

646.3712 Manufactured No

100 Each

14.0000

1 1

646 3712

Clip

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

14

155309

4

156884

10

646.3713 Manufactured No

100 Each

14.0000

1 1

646 3713

Gusset

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

14

151646

4

156776

10

646.3714 Manufactured No

100 Each

14.0000

1 1

646 3714

Gusset

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

14

151643

4

156761

10

646.3715 Manufactured No

100 Each

8.0000

2 2

646 3715

Strut Doubler

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

8

156833

8

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Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

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Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

646.3716
646 3716
Gauge Bracket

Manufactured No

100 Each

13.0000

1 1

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

13

140845

3

156773

10

646.3717
646 3717
Doubler

Manufactured No

100 Each

9.0000

1 1

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

9

151423

1

155481

8

646.3718
646 3718
Custom Washer

Manufactured No

100 Each

15.0000

2 2

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

15

155395

15

646.3719
646 3719
Doubler

Manufactured No

100 Each

18.0000

2 2

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

18

155554

8

156810

10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

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157753

646 4001

Required Date: 4/13/2017

Required Qty: 1.00

DAS
27
9-89

DAS
27
9-89

DAS
27
9-99

DAS
27
9-89

Page 7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

646.3910 Manufactured No

100 Each

29.0000

4 4

646 3910

Shim

**

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

17

151458

1

155260

4

156217

12

CCK108A

12

156793

12

646.3911 Manufactured No

100 Each

13.0000

1 1

646 3911

Shim

**

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

13

126229

13

646.3912 Manufactured No

100 Each

27.0000

4 4

646 3912

Shim

**

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK108A

27

155639

12

156874

15

646.3913 Manufactured No

100 Each

52.0000

1 1

646 3913

Shim

**

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

52

126060

52

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Page 8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :					
Misidentified ☐	Past Due ☐						

Picklist Print

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Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

646.9410
646 9410
Shim

DAS
28
9-89

Manufactured No

100 Each

61.0000

1 1

**

DAS
6
9-89
APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck011

61

140671

61

647.0112
647 0112
Strut Bracket

DAS
28
9-89

Manufactured No

100 Each

49.0000

2 2

**

DAS
6
9-89
APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

17

156756

17

CCK106

32

155480

32

647.7703
647 7703
Strut Assembly

DAS
28
9-89

Manufactured No

100 Each

8.0000

2 2

**

DAS
6
9-89
APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK114

8

157782

8

650.9201
650 9201
Eyelet Bracket Assembly

DAS
28
9-89

Manufactured No

100 Each

30.0000

2 2

**

DAS
6
9-89
APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck127

30

155578

10

156828

20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : _____							

Picklist Print

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Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-11A Purchased No

100 Each

398.0000

10 10

AN3-11A

Bolt

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

over003

250

153855

150

m136192

100

ST349

148

153855

148

AN3-12A Purchased No

100 Each

269.0000

2 2

AN3-12A

Bolt

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

over003

206

153854

206

ST349

63

m135603

63

AN3-13A Purchased No

100 Each

47.0000

1 1

AN3-13A

Bolt

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

16

m127070

16

ST349

31

153845

30

m136406

1

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Shop Packet Print

Page 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																																			
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<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: left;">Root Cause</th> <th colspan="6" style="text-align: left;">FAULT CATEGORY</th> </tr> </thead> <tbody> <tr> <td>Environment ☐</td> <td>No Re-verification ☐</td> <td>Pressure/Forced ☐</td> <td>Temperature/Cure ☐</td> <td>Power Loss/Surge ☐</td> <td>Positioned Wrong ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td colspan="4" rowspan="2" style="vertical-align: top;">OTHER : _____</td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> </tr> </tbody> </table>										Root Cause				FAULT CATEGORY						Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____				Misidentified ☐	Past Due ☐
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Picklist Print

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Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-6A Purchased No

100 Each 73.0000 2 2

AN3-6A

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

ST350

73

153844

73

AN44-5A Purchased No

100 Each 29.0000 2 2

AN44-5A

Eyebolt

DAS
28
9-89

Location

Loc Qty

Loc Code

ST339

29

m136047

5

m136800

12

m137075

12

AN4C7A Purchased No

100 Each 66.0000 2 2

AN4C7A

BOLT

DAS
28
9-89

Location

Loc Qty

Loc Code

OVER002

54

m136295

54

ST345

12

123900

4

m135864

8

AN665-34R Purchased No

100 Each 20.0000 2 2

AN665-34R

Clevis

DAS
28
9-89

Location

Loc Qty

Loc Code

ST330

20

153852

20

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Page 12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Page 13

Wednesday, April 05, 2017 2:13:07 PM

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

CCR264SS3-02 Purchased No
CCR264SS3-02
 Cherry Rivet

100 Each 293.0000 36 36

APR 11 2017

DAS
27
9-89

DAS
28
9-89

Location	Loc Qty	Loc Code
CCK003	225	
M136986	225	
ST321	68	
M136648	68	

DAS
6
9-89

4

32

CR3213-5-3 Purchased No
CR3213-5-3
 Cherry Rivet

100 Each 102.0000 14 14

APR 11 2017

DAS
27
9-89

DAS
28
9-89

Location	Loc Qty	Loc Code
ST319	102	
m136537	2	
m136851	100	

DAS
6
9-89

14

MS20426AD5-7 Purchased No
MS20426AD5-7
 RIVET

100 Each 1,422.000 2 2

APR 11 2017

DAS
27
9-89

DAS
28
9-89

Location	Loc Qty	Loc Code
CCK004	703	
153848	703	
ST311	719	
M133922	719	

DAS
6
9-89

2

MS20470AD5-5.5 Purchased No
MS20470AD5-5 5
 Rivet

100 Each 702.0000 8 8

APR 11 2017

DAS
27
9-89

DAS
28
9-89

Location	Loc Qty	Loc Code
ST309	702	
m134063	702	

DAS
6
9-89

8

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

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Page 14

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

MS20470AD5-6 Purchased No
MS20470AD5-6
 RIVET

DAS
28
9-89

Location

ST309

124089

Loc Qty

592

592

Loc Code

**

8

8

DAS
6
9-89

APR 11 2017

DAS
27
9-89

MS20470AD5-7 Purchased No
MS20470AD5-7
 Rivet

DAS
28
9-89

Location

ST309

123425

Loc Qty

368

368

Loc Code

**

3

3

DAS
6
9-89

APR 11 2017

DAS
27
9-89

MS21042-08 MS21042L08 Purchased No
MS21042-08
 USE MS21042L08

DAS
28
9-89

Location

ST309

123425

Loc Qty

368

368

Loc Code

**

2

2

DAS
6
9-89

APR 11 2017

137061

DAS
27
9-89

MS21042-3 MS21042L08 Purchased No
MS21042-3
 Nut

DAS
28
9-89

Location

ST309

123425

Loc Qty

368

368

Loc Code

**

2

2

DAS
6
9-89

APR 11 2017

137073

DAS
27
9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
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Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

Wednesday, April 05, 2017 2:13:07 PM

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

100

Each

1,921.000

61

61

MS21042L3

Nut

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

100

m135945

100

GA

208

m134360

102

M136665

106

OVER007

800

m134360

0

M136665

300

m137166

500

ST303

813

m137073

813

APR 11 2017

DAS
28
9-89

DAS
6
9-89

MS21042L4

Purchased

No

100

Each

1,365.000

2

2

MS21042L4

Nut

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

154

m135058

154

OVER007

500

m137166

500

ST303

701

m136450

199

m136838

2

m136986

500

APR 11 2017

DAS
28
9-89

DAS
6
9-89

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Root Cause		FAULT CATEGORY					
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Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
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Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

Page 16

Wednesday, April 05, 2017 2:13:07 PM

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

MS21047-3

Purchased

No

100

Each

216.0000

18

18

MS21047-3

Nut Plate

**

APR 11 2017

DAS 6 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST301

216

m136442

3

m136781

13

m136986

100

m137075

100

18

MS24693-C278

Purchased

No

100

Each

60.0000

5

5

MS24693-C278

Screw

**

APR 11 2017

DAS 6 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST287

60

m136554

60

5

MS24694-S51

Purchased

No

100

Each

322.0000

5

5

MS24694-S51

Screw

**

APR 11 2017

DAS 6 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST284

322

m135442

72

m136866

250

5

MS24694-S54

Purchased

No

100

Each

192.0000

2

2

MS24694-S54

SCREW

**

APR 11 2017

DAS 6 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST284

192

153846

157

m135948

35

2

Wednesday, April 05, 2017 2:13:08 PM

Shop Packet Print

Page 16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Page 17

Wednesday, April 05, 2017 2:13:08 PM

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

MS24694-S55

Purchased

No

100

Each

314.0000

3

3

MS24694-S55

Screw

**

APR 11 2017

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

over006

247

153847

247

3

DAS
6
9-89

ST283

67

m136042

67

MS27039-08-13

Purchased

No

100

Each

348.0000

2

2

MS27039-08-13

Screw

**

DAS
6
9-89 APR 11 2017

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

over006

325

153849

325

ST278

23

m136199

23

2

MS27039-1-10

Purchased

No

100

Each

309.0000

2

2

MS27039-1-10

SCREW

**

DAS
6
9-89 APR 11 2017

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

15

m129541

15

ST280

294

m137164

294

2

MS27039-1-12

Purchased

No

100

Each

64.0000

6

6

MS27039-1-12

Screw

**

DAS
6
9-89 APR 11 2017

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST280

64

m136537

64

6

Wednesday, April 05, 2017 2:13:08 PM

Shop Packet Print

Page 17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Page 18

Wednesday, April 05, 2017 2:13:08 PM

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-16

Purchased

No

100

Each

171.0000

24

24

MS27039-1-16

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

over006

50

m137061

50

ST280

121

m136851

100

m136975

21

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-19

Purchased

No

100

Each

281.0000

22

22

MS27039-1-19

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

80

m134134

80

ST280

201

m136648

1

m137075

200

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-20

Purchased

No

100

Each

89.0000

2

2

MS27039-1-20

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

ST280

89

m136554

89

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-21

Purchased

No

100

Each

167.0000

4

4

MS27039-1-21

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

ST280

167

m127904

167

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

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Shop Packet Print

Page 18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

Picklist Print

Wednesday, April 05, 2017 2:13:08 PM

Page 19

Work Order ID: 157753

157753

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/6/2017

Required Date: 4/13/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

100

Each

2,528.000

144

144

DAS

6

9-89

DAS

27

9-89

NAS1149F0332P

Washer

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

335

m133709

335

ST262

2193

m136835

393

m137075

1800

ADD 1 4 2017

NAS1149F0363P

Purchased

No

100

Each

82.0000

2

2

DAS

6

9-89

DAS

27

9-89

NAS1149F0363P

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

82

124555

82

NAS1149F0432P

Purchased

No

100

Each

601.0000

4

4

DAS

6

9-89

DAS

27

9-89

NAS1149F0432P

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

601

M136442

601

NAS1149FN832P

Purchased

No

100

Each

1,526.000

4

4

DAS

6

9-89

DAS

27

9-89

NAS1149FN832P

Washer

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

323

M135058

232

M136182

91

ST263

1203

M136866

1203

APR 11 2017

Wednesday, April 05, 2017 2:13:08 PM

Shop Packet Print

Page 19

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED BY J. BECKER

DATE: 02/04/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY:

ENGR

MFG

QC

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 12.

ECR:
N/A

ACTION ITEM:
1. N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 157753 MJS
1704-05

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2. INSTALL F/N 14 WITH F/N 52 & 53.

3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.

4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5. REUSE FASTENERS FROM F/N 1.

6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7. AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

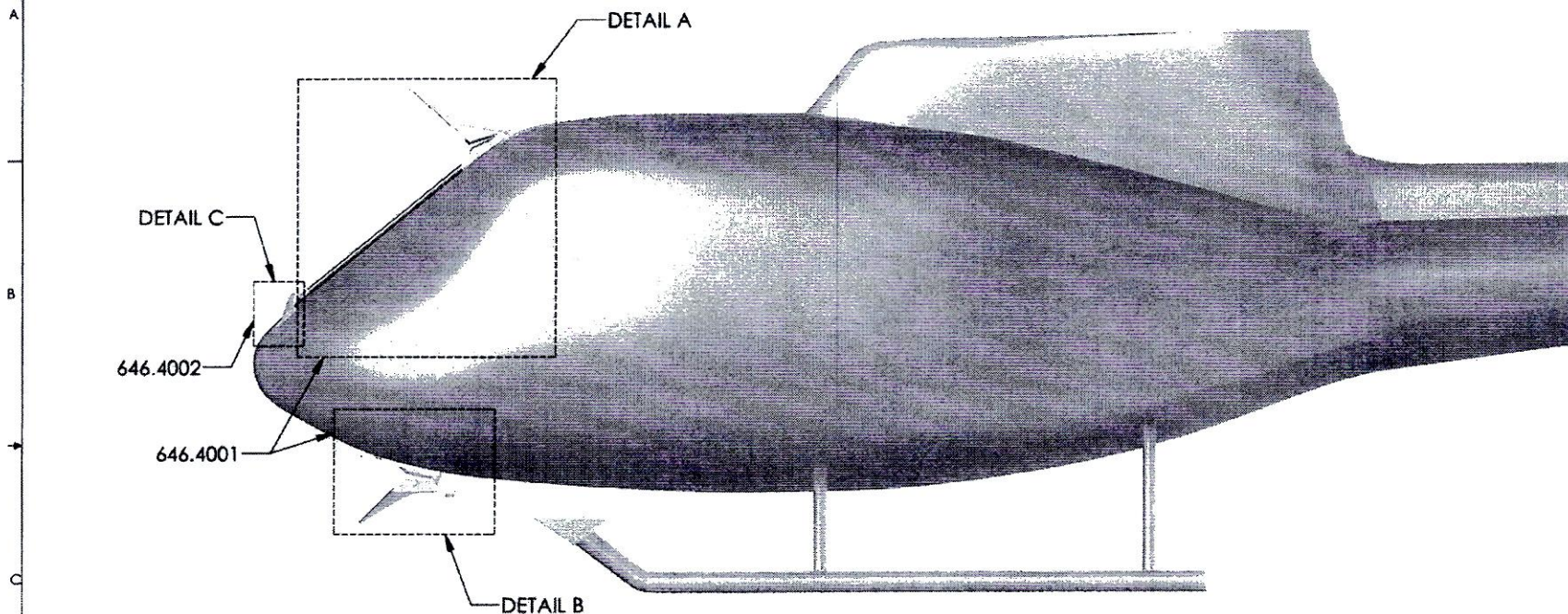
5	5	5	78	601.3875	SCREW					
1	1	1	77	646.9410	SHIM					
		4	76	601.2764	WASHER					
		2	75	601.2973	LOCKNUT					
		2	74	601.2988	SCREW					
		2	73	601.2943	LOCKNUT					
		2	72	601.3128	NUT					
		2	71	601.3209	LOCKNUT					
		4	70	601.2638	WASHER					
		2	69	601.2669	BOLT					
		2	68	601.3119	CLEVIS					
		2	67	601.3121	EYE BOLT					
		2	66	650.9201	EYE BRACKET ASSY					
REF	REF		65	647.5701	GPS MOUNT KIT					
			2	64	601.3151	WASHER				
		2		63	601.2911	SCREW				
		24	24	62	601.2637	SCREW				
2		2	2	61	601.2763	BOLT				
		1	1	60	646.3913	SHIM				
		4	4	59	646.3912	SHIM				
		1	1	58	646.3911	SHIM				
		4	4	57	646.3910	SHIM				
		5	5	56	600.1013	PRIMER				
	8 FT	8 FT	55	600.0129	VHB TAPE					
	1	1	54	600.1012	SEALANT					
		1	53	600.0991	MAGNOBOND 6398 PART B					
		1	52	600.0990	MAGNOBOND 6398 PART A					
6	10	10	51	601.2826	BOLT					
		2		50	646.3814	WIPER BRACKET				
		2		49	601.2910	SCREW				
	2		2	48	601.1365	SCREW				
	2		2	47	646.3719	DOUBLER				
		2	2	46	646.3718	CUSTOM WASHER				
	1		1	45	646.3717	DOUBLER				
		22	22	44	601.1948	SCREW				
		2	2	43	601.1952	SCREW				
		4	4	42	601.1956	SCREW				
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02199, 02381, 02719 & 02745	02/08/2010	P. BRAVO
B	INCORPORATED ECN 03046, 03079 & 04731	11/04/2014	P. BRAVO
C	INCORPORATED ECN 05096	08/04/2015	P. BRAVO

			2		2	41	601.2829	SCREW		MS24654554
			2		2	40	601.2831	RIVET		MS20426AD5-7
			1		1	39	646.3716	GAUGE BRACKET		
			6		6	38	601.1953	SCREW		MS27039-1-12
		2			2	37	646.3715	STRUT DOUBLER		
		2	2		2	36	601.2824	BOLT		ANS-5A
12		36			36	35	601.2277	RIVET		DC92465-9-02
6		18			18	34	600.0795	NUTPLATE		MS21047-5
3		3			3	33	601.2565	RIVET		MS20470AD5-7
1		1			1	32	646.3813	STRUT BRACKET		
4		4			4	31	601.2822	BOLT		ANS-3A
2		2			2	30	646.3812	GUSSET BRACKET		
8		8			8	29	601.2564	RIVET		MS20470AD5-6
1		1			1	28	646.3714	GUSSET		
		1		1	1	27	646.3610	FILLER		
		3		3	3	26	601.2830	SCREW		MS24654555
		2		2	2	25	601.2825	BOLT		ANS-6A
		1		1	1	24	646.3811	RADIUS BLOCK		
		1		1	1	23	646.3712	CLIP		
		1		1	1	22	646.3711	CLIP		
8		8			8	21	601.2832	RIVET		MS20470AD5-5
14		14			14	20	601.2020	RIVET		CR3215-5-3
4		6		4	6	10	601.2823	BOLT		ANS-4A
		1		1	1	18	601.2827	BOLT		ANS-13A
		5		5	5	17	601.2912	SCREW		MS24654551
1		1			1	16	646.3713	GUSSET		
1		1			1	15	646.3210	SUPPORT		
		1			1	14	646.3710	DOUBLER		
		1		1	1	13	646.3110	CHANNEL		
14	10	8	53	6	61	12	601.1624	LOCKNUT		MS21042-3
16	32	18	120	16	144	11	601.1607	WASHER		MS11470322P
					10		646.3410	LH WIPER DEFLECTOR		
					9		646.3411	RH WIPER DEFLECTOR		
			2		2	8	647.7703	STRUT ASSY		
			2		2	7	647.0112	STRUT BRACKET		
		1	1		1	6	646.3511	STRUT		
		1	1		1	5	646.3510	STRUT		
2		2			2	4	646.3810	BRACKET		
			1		1	3	646.2910	DEFLECTOR		
		1	1		1	2	646.3001	LOWER CUTTER ASSY		
			1		1	1	646.3301	UPPER CUTTER ASSY		
X							646.4006	LOWER CUTTER FIXED PROVISIONS		
	X						646.4005	LOWER CUTTER REMOVABLE PROVISIONS		
		X					646.4004	FIXED PROVISIONS KIT		
			X				646.4003	CABLE CUTTERS KIT WITHOUT FIXED PROVISIONS		
				X			646.4002	AS350 WIPER DEFLECTOR KIT		
				X			646.4001	AS350 CABLE CUTTERS KIT		
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

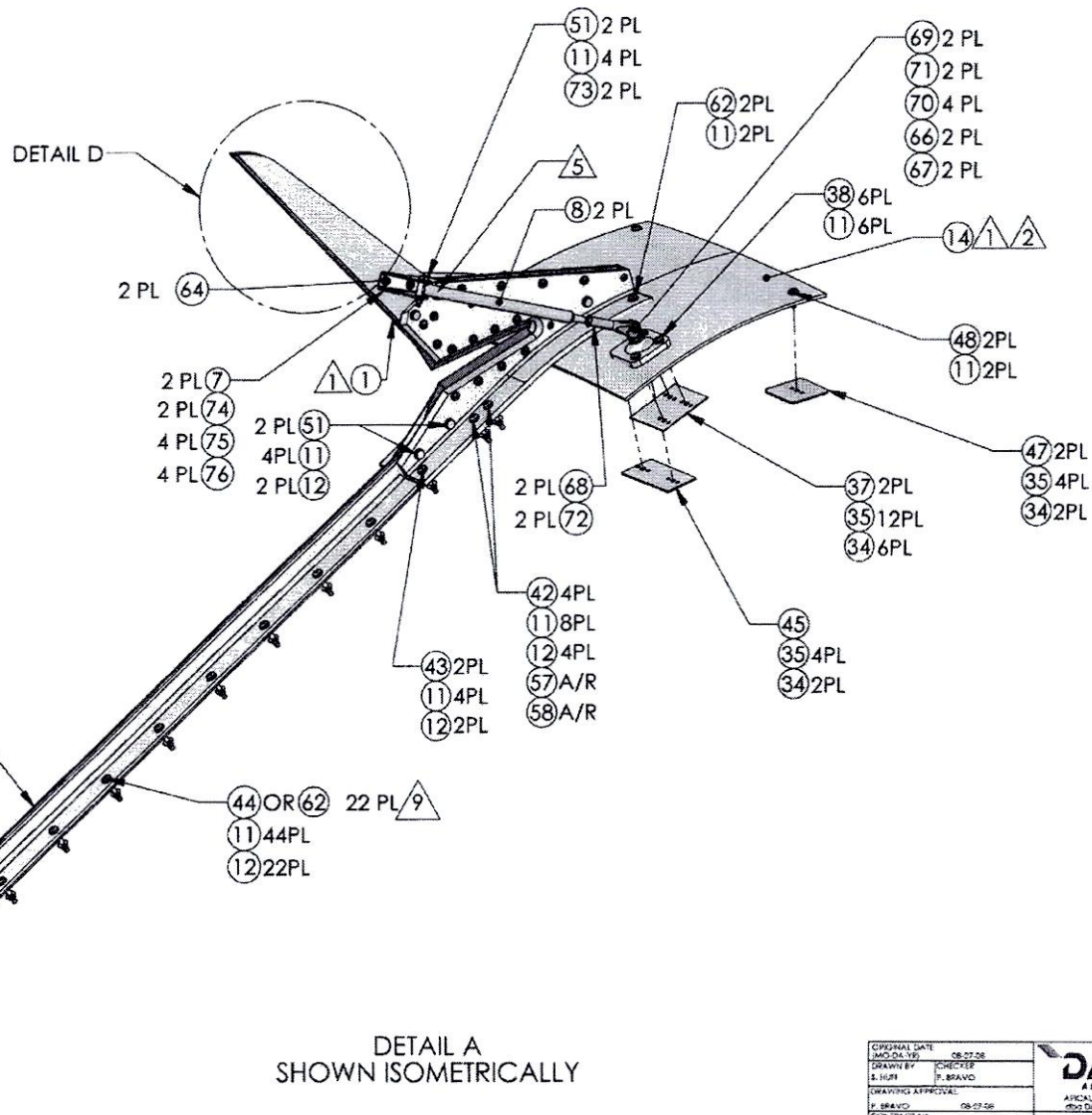
QTY	DESCRIPTION	PARTS LIST
NEXT ASSY (S)	CHECK: DATE 08-27-08 DRAWN BY: P. BRAVO CHECKED BY: P. BRAVO DRAWING APPROVAL: P. BRAVO CONTRACT NO.	DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760) 724-5300 AS350 CABLE CUTTERS KIT
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES 10 DECIMALS 2 PLACES DECIMALS: 0.01 3 PLACES DECIMALS: 0.005 ANGLES: ± 0.5°	SHT: 07/01/16 B: 646.4000 SCALE: NONE	REV: C SHEET 1 OF 5

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ORIGINAL DATE 08-27-08		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY J. BRAND	CHECKED J. BRAND	DART AEROSPACE APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL J. BRAND	DESIGN J. BRAND		
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.005 ANGLES ±.5°		SIZE B CAGE CODE 07M26 DWG. NO. 646.4000 REV C	SCALE NONE SHEET 2 OF 3

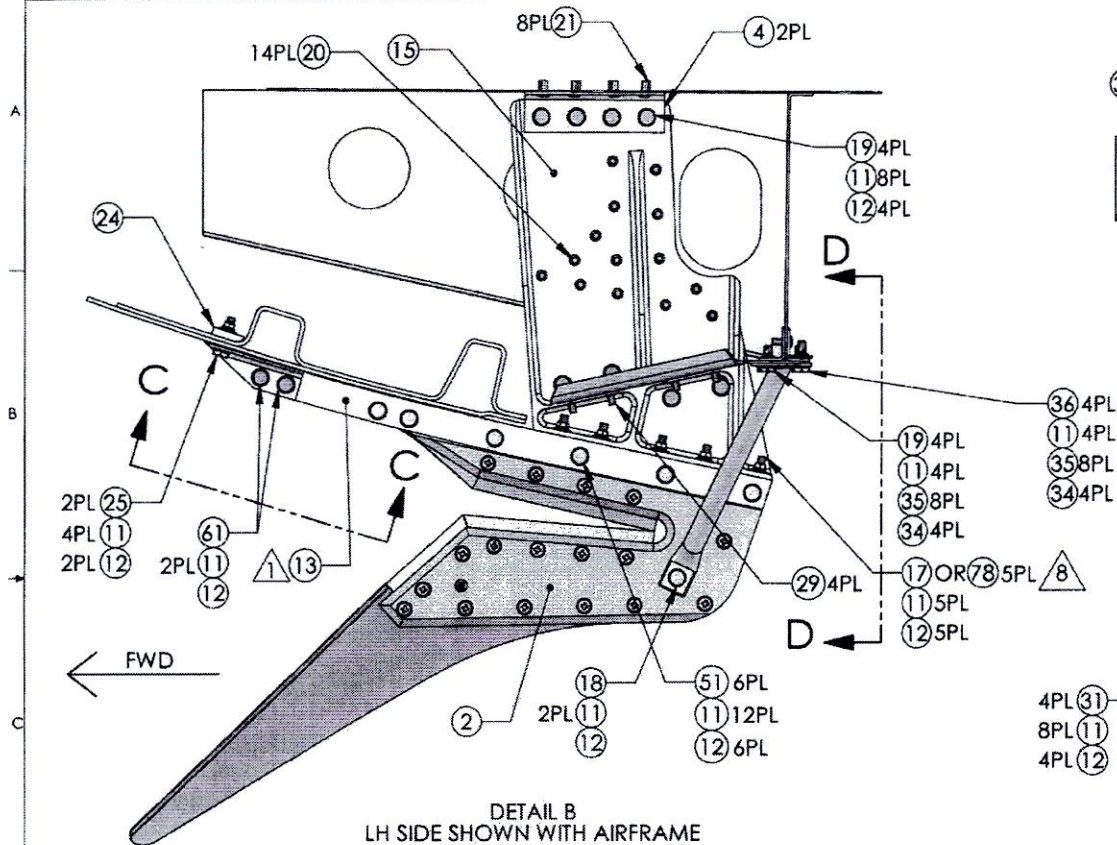
DETAIL D
TYPICAL GPS MOUNT KIT INSTALLATION



DETAIL A
SHOWN ISOMETRICALLY

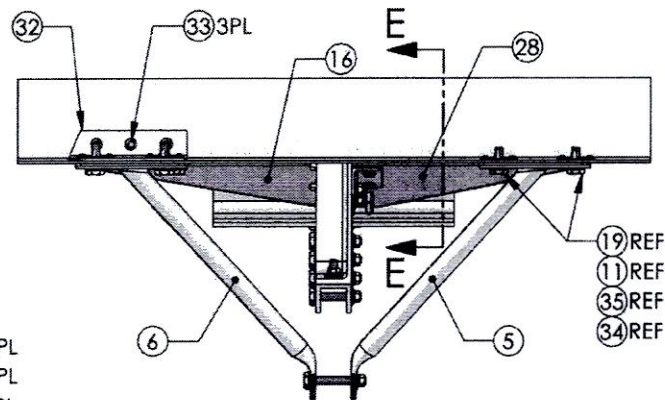
CHARGE DATE (MM/DD/YY)	08-27-06	 DART AEROSPACE AIRCRAFT INDUSTRIES INC. 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760) 724-5300
DRAWING BY	CHICKER J. LEHN	
DRAWING APPROVAL		
P. BRAYNO	08-27-06	
CLIP/PRINT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE .001 3 PLACE DECIMALS ± .001 ANGLES ± .5°		
AS350 CABLE CUTTERS KIT		
SER.	CAGE CODE	QTY. NO.
07M26		646,4000
SCALE NONE		SHEET 3 OF 5

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DIA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
WRITTEN PERMISSION OF APICAL INDUSTRIES DIA DART AEROSPACE IS PROHIBITED.

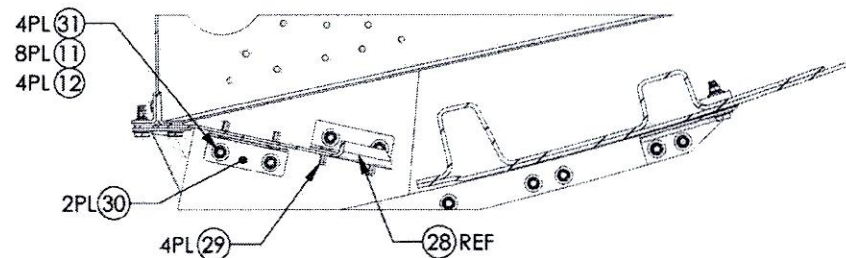


DETAIL B
LH SIDE SHOWN WITH AIRFRAME

SECTION C-C



SECTION D-D
CUTTER HIDDEN FOR CLARITY



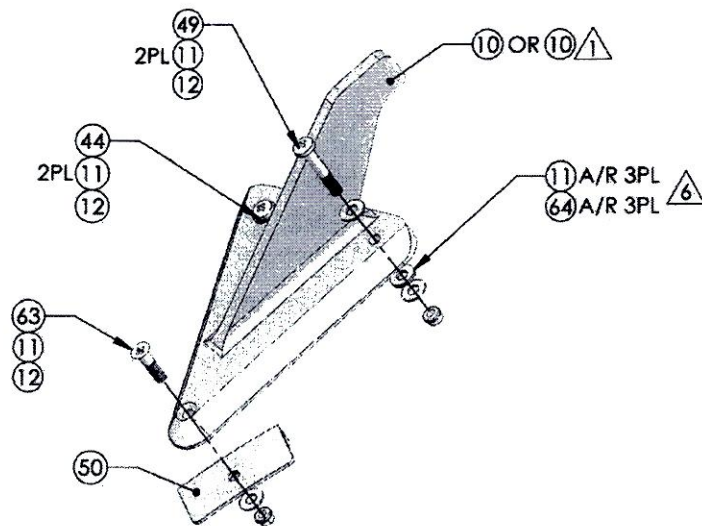
SECTION E-E

ORIGINAL DATE (MM-DD-YY)	03-27-08	 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760) 774-5300	
DRAWN BY	CHECKED BY P. BRAYD		
DESIGNED BY	APPROVED BY P. BRAYD		
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±0.10 3 PLACE DECIMALS ±0.05 ANGLES ± 1°			
AF3530 CABLE CUTTERS KIT		AF3530 BULKHEAD INC. 205 DART AVENUE VISTA, CA 92081	
DATE	CADT CODE	DWG. NO.	REV
B	07M36	646.4000	C
SCALE NONE			SHEET 4 OF 5

DART 3030 ENTERPRISE CT.,
AEROSPACE SUITE A
VISTA, CA. 92081
APICAL INDUSTRIES INC.
(760)-724-5300
DIA DART AEROSPACE

AS350 CABLE CUTTERS KIT

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WRITTEN PERMISSION OF APICAL INDUSTRIES/DIA DART AEROSPACE IS PROHIBITED.



DETAIL C
LH SHOWN EXPLODED
RH OPPOSITE

ORIGINAL DATE DWO-DA-381 08-21-08		3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY S. HUFF	CHECKED P. BRAYO	DART AEROSPACE APICAL INDUSTRIES, INC. DIA DART AEROSPACE	
DRAWING APPROVAL P. BRAYO 08-21-08			
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .0010 3 PLACE DECIMALS .0005 ANGLES .5°		SEE CASH CODE 8 07M26	DWO. NO. 646.4000
SCALE NONE		REV. C SHEET 5 OF 5	

REFERENCE ONLY

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NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
2. INSTALL F/N 14 WITH F/N 52 & 53.
3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASER-CARR P/N 75935A651.
4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.
5. REUSE FASTENERS FROM F/N 1.
6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.
7. AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.
8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.
9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

	5		5	78	601.3875	SCREW	UNINCORPORATED			
	1		1	77	646.9410	SHIM				
			4	76	601.2764	WASHER	NAS1149F0432P			
			2	75	601.2973	LOCKNUT	MS21042-08			
			2	74	601.2988	SCREW	MS27039-0813			
			2	73	601.2943	LOCKNUT	MS21042-3			
			2	72	601.3128	NUT	AN316C-4R			
			2	71	601.3209	LOCKNUT	MS21042-3			
			4	70	601.2638	WASHER	NAS1149F0432P			
			2	69	601.2669	BOLT	AN6C-7A			
			2	68	601.3119	CLEVIS	AN665-3AR			
			2	67	601.3121	EYE BOLT	AN66A-5A			
			2	66	650.9201	EYE BRACKET ASSY				
	REF	REF	REF	65	647.5701	GPS MOUNT KIT				
			2	64	601.3151	WASHER	NAS1149F0330P			
		2		63	601.2911	SCREW	MS21042-08			
		24	24	62	601.2637	SCREW	MS27039-1-16			
	2	2	2	61	601.2763	BOLT	AN3-12A			
		1	1	60	646.3913	SHIM				
		4	4	59	646.3912	SHIM				
		1	1	58	646.3911	SHIM				
		4	4	57	646.3910	SHIM				
		5	5	56	600.1013	PRIMER				
	8 FT	8 FT	8 FT	55	600.0129	VHB TAPE				
		1	1	54	600.1012	SEALANT	PR-105 CLASS B			
		1	1	53	600.0991	MAGNABOND 6398 PART B				
		1	1	52	600.0990	MAGNABOND 6398 PART A				
	6	10	10	51	601.2826	BOLT	AN3-11A			
		2	2	50	646.3814	WIPER BRACKET				
		2	2	49	601.2910	SCREW	MS27039-1-18			
	2		2	48	601.1365	SCREW	MS27039-1-10			
	2		2	47	646.3719	DOUBLER				
		2	2	46	646.3718	CUSTOM WASHER				
		1	1	45	646.3717	DOUBLER				
		22	22	44	601.1948	SCREW	MS27039-1-19			
		2	2	43	601.1952	SCREW	MS27039-1-20			
		4	4	42	601.1956	SCREW	MS27039-1-21			
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REV	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02119, 0231, 0271 & 02745	02/08/2010	P. BRAVO
B	INCORPORATED ECN 02044, 02079 & 04731	11/04/2011	P. BRAVO
C	INCORPORATED ECN 02038	09/05/2013	P. BRAVO

		2		2	41	601.2829	SCREW	MS24494554		
		2		2	40	601.2831	RIVET	MS20426AD5-7		
		1		1	39	646.3716	GAUGE BRACKET			
		6		6	38	601.1953	SCREW	MS27039-1-12		
	2	2		2	37	646.3715	STRUT DOUBLER			
	2	2		2	36	601.2824	BOLT	AN3-5A		
12	36			36	35	601.2277	RIVET	CC06445-0-02		
6	18			18	34	600.0795	NUT/PLATE	MS21042-3		
3	3			3	33	601.2565	RIVET	MS20426AD5-7		
1	1			1	32	646.3813	STRUT BRACKET			
4	4			4	31	601.2822	BOLT	AN3-3A		
2	2			2	30	646.3812	GUSSET BRACKET			
8	8			8	29	601.2564	RIVET	MS20426AD5-6		
1	1			1	28	646.3714	GUSSET			
	1	1		1	27	646.3610	FILLER			
	3	3		3	26	601.2830	SCREW	MS24494555		
	2	2		2	25	601.2825	BOLT	AN3-6A		
	1	1		1	24	646.3811	RADIUS BLOCK			
	1	1		1	23	646.3712	CLIP			
	1	1		1	22	646.3711	CLIP			
8	8			8	21	601.2832	RIVET	MS20426AD5-5		
14	14			14	20	601.2020	RIVET	CR3213-5-3		
4	6	4	6	10	19	601.2823	BOLT	AN3-4A		
	1	1	1	1	18	601.2827	BOLT	AN3-3A		
	5	5		5	17	601.2912	SCREW	MS24494551		
1	1			1	16	646.3713	GUSSET			
1	1			1	15	646.3210	SUPPORT			
	1	1		1	14	646.3710	DOUBLER			
	1	1		1	13	646.3110	CHANNEL			
14	10	8	53	6	61	12	601.1624	LOCKNUT	MS21042-3	
16	32	18	120	16	144	11	601.1607	WASHER	NAS1149F0330P	
				10			646.3410	LH WIPER DEFLECTOR		
				9			646.3411	RH WIPER DEFLECTOR		
		2		2	8		647.7703	STRUT ASSY		
		2		2	7		647.0112	STRUT BRACKET		
	1	1		1	6		646.3511	STRUT		
	1	1		1	5		646.3510	STRUT		
2	2			2	4		646.3810	BRACKET		
				1	3		646.2910	DEFLECTOR		
	1	1		1	2		646.3001	LOWER CUTTER ASSY		
		1		1	1		646.3301	UPPER CUTTER ASSY		
X							646.4006	LOWER CUTTER FIBER PROVISIONS		
	X						646.4005	LOWER CUTTER REMOVABLE PROVISIONS		
		X					646.4004	FIXED PROVISIONS KIT		
			X				646.4003	CABLE CUTTERS 48 IN-HOUR FIBER PROVISIONS		
				X			646.4002	ASS350 WIPER DEFLECTOR KIT		
					X		646.4001	ASS350 CABLE CUTTERS KIT		
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

QTY

NEXT ASSY (S)

ORIGINAL DATE: 02/08/2010
 DRAWN BY: P. BRAVO
 CHECKED BY: P. BRAVO
 DRAWING APPROVAL: P. BRAVO
 CONTRACT NO.

MASS ENTERPRISE SPECIFIED DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED
 2 PLACE DECIMALS = 0.005
 3 PLACE DECIMALS = 0.0005
 4 PLACE DECIMALS = 0.0001

3030 ENTERPRISE CT., SUITE A, VISTA, CA 92081
 (760)-724-5300

ASS350 CABLE CUTTERS KIT

SHEET 1 OF 3

Work Order ID 157753

Wednesday, April 05, 2017 2:13:08 PM

157753

Page 1

Item ID: 646.4001

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: AS350 Cable Cutter System

Stop ***NS2***

Start Date: 4/6/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/13/2017 Req'd Qty: 1.00

1

Customer:

Reference: SCHEDULED/S

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

646.4000

C1

APR 10 2017

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP 646.4001

CB

DAS
21
9-89

APR 11 2017

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.03

Quality Control